

FISHING PRESSURE, FISH HARVEST, AND ECONOMIC VALUE
OF DOGWOOD LAKE

Daviess County
2006 Fish Management Report

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EXECUTIVE SUMMARY

- An angler creel survey at Dogwood Lake, Daviess County was conducted from April 3 to October 14, 2006. The specific objectives of the survey were to determine angler preference, harvest, number of largemouth bass caught and released, and angler satisfaction.
- There were an estimated 14,183 fishing trips that totaled 77,991 h (55.2 h/acre) of fishing pressure during the survey at Dogwood Lake. Anglers harvested an estimated 100,507 fish (71.1 fish/acre) weighing 30,210 lbs (21.3 lbs/acre).
- Bluegill comprised 72% of the harvest by number. An estimated 72,539 bluegill weighing 17,804 lbs were harvested during the creel period. Harvested bluegill averaged 6.7 in TL and 0.25 lb by weight.
- An estimated 17,963 redear were harvested which comprised 18% of the harvest by number and 23% by weight. Harvested redear averaged 7.9 in TL and 0.38 lbs by weight.
- An estimated 317 largemouth bass were harvested. The average length of harvested largemouth bass was 17.6 in. Anglers caught and released an estimated 50,121 largemouth bass during the survey. Sub-legal bass accounted for 47,196 of the total with a preference catch rate of 1.4 fish/h. A total of 2,925 legal size bass were caught and released with a preference catch rate of 0.12 fish/h.
- The number of angling trips decreased in 2006 from the 2001 creel survey. Overall, anglers harvested more fish with less effort than in 2001. The tradeoff was a decrease in average length of bluegill and a slight decrease in average length for redear. In 2006, catch and release totals for bass above and below the size limits decreased as result of the reduced effort compared to the 2001 creel. However, when comparing catch rates in terms of hours of effort per fish the rate was almost identical for bass above and below the size limit.
- Overall angler satisfaction was above average.

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INTRODUCTION

Dogwood Lake is a 1,414 acre impoundment located on the Glendale Fish and Wildlife Area about 8 mi south of Montgomery, Indiana. The maximum depth of Dogwood Lake is 42 ft, while the average depth is approximately 10 ft. Public access is available at three state-owned boat ramps, two near the Glendale check station and a third near the dam. Anglers may also fish from the shoreline in designated areas. There is a 10 horsepower limit on outboard motors used at the lake. In 1973, Dogwood Lake was among the first lakes in Indiana to be put under a 14-in minimum size limit for largemouth bass.

The fish population at Dogwood was completely eradicated in 1978. After the eradication, the lake was restocked with largemouth bass, bluegill, redear sunfish, black crappie, channel catfish, and flathead catfish.

In 1991, a fish survey revealed a high density of slow growing bass. Bluegill growth rates were above average and their densities appeared to be lower than in previous surveys. In the spring of 1992, the 14-in minimum size limit for bass was changed to a 12 to 15-in protected slot size limit. The statewide bag limit for largemouth bass remained in force.

Annual standard bass sampling and fish community surveys were conducted to monitor the fishery. In 1998, the slot size limit was lifted and replaced with a 15-in minimum size limit. A standard community fish survey in 2000 indicated a slight increase over previous surveys in bass density and bluegill catch rates for all gear types. It was recommended that the 15-in size limit remain in effect to insure adequate bass numbers to control panfish. In 2001, an angler creel survey was conducted and one finding was that bass were the most popular species for Dogwood anglers (Schoenung 2001). Historically, most anglers had targeted panfish at Dogwood Lake.

A subsequent fisheries survey in 2005 documented good bluegill growth after age 3. Analysis of historic bass data indicated the peak of the bass size structure occurred approximately three to four years after the slot size limit was lifted. A decline in bass growth and number of larger fish was observed starting in 2003.

To obtain information about fishing pressure and fish harvest at Dogwood Lake, an angler creel survey was conducted from April 3 to October 14, 2006. The specific

objectives of the survey were to determine angler preference, harvest, number of largemouth bass caught and released, and angler satisfaction. This report presents the results of the angler survey.

METHODS

The angler survey was the direct contact type and followed the guidelines established by Hudson and Shipman (1980). The fishing day was defined as lasting 15 h, with each day divided into an early (6:00 a.m. to 1:30 p.m.) and a late period (1:30 p.m. to 9:00 p.m.). The creel clerk worked during either the early or late period on seven weekdays and three weekend days per two-week period. The sample was stratified to include approximately equal numbers of early and late periods.

Because no swimming or skiing is allowed at Dogwood Lake, virtually all boaters visiting the lake are anglers. Therefore, angler counts were obtained by counting boat trailers and shore anglers at all access points during two randomly assigned count periods per shift. The boat trailer count was then multiplied by the average number of anglers per boat for each month, derived from interview data. To establish the number of campground anglers fishing, the number of boats tied to shore was subtracted from the number of boat trailers in the campground.

Shoreline anglers were normally interviewed while making counts, whereas boat anglers were typically interviewed at the ramp upon completion of their fishing trip. Interview data included: length of trip, number in party, county of residence, species sought, number and size of fish harvested, and number and size of largemouth bass caught and released (over and under 15 in). Boat and shoreline fishing data were recorded separately as were complete and partial trip interviews. Additionally, anglers were asked to rate the satisfaction of their fishing trip on a scale of 1 to 5 with 1 being excellent and 5 being poor.

Weekday and weekend data were expanded separately with federal holidays considered as weekend days. The data was then combined to obtain monthly estimates of fishing pressure and harvest. Species sought, the county of residence, and responses to trip satisfaction were not expanded. Weights of fish harvested were estimated using

average weights of fish at Dogwood Lake and, when necessary, weights from other lakes or length-weight regressions.

RESULTS

Fishing Pressure and Angler Preference

From April 3 to October 14, 2006, 1,554 angling parties were interviewed. There were an estimated 14,183 fishing trips that totaled 77,991 h (55.2 h/acre) of fishing pressure during the survey at Dogwood Lake (Table 1). This estimate represents a 38% decrease in use since the creel survey in 2001. In 2001, there were an estimated 26,125 anglers fishing an estimated 124,422 h (88.0 h/acre). Fishing pressure was highest in May and September and lowest in August. This was similar to the 2001 creel survey.

Approximately half the anglers at Dogwood Lake fished for bluegill (56%), followed by largemouth bass (30%), crappie (6%), channel catfish (3%), redear (3%) and anglers fishing for “anything” (1%) (Table 2). In 2001, largemouth bass (39%) were the most sought after gamefish.

Fish Harvest

Anglers harvested an estimated 100,507 fish (71.1 fish/acre) weighing 30,210 lbs (21.3 lbs/acre) at Dogwood Lake (Table 3). This represents an increase in harvest by number but a decrease in weight when compared to the 2001 creel when 79,557 fish were harvested at an estimated weight of 40,972 lbs (Schoenung 2001).

Bluegill comprised 72% of the harvest by number and 59% by weight. An estimated 72,539 bluegill weighing 17,804 lbs were harvested during the creel period. Harvested bluegill ranged from 4.0 to 11.5 in TL with an average length of 6.7 in. The average weight of harvested bluegill was 0.25 lb (Appendix). The overall harvest rate was 0.93 fish/h. Anglers targeting bluegill, or preference harvest for bluegill, was 1.5 fish/h. Anglers were most successful fishing for bluegill in September and May. In 2001, 44,439 bluegill were harvested with an average length of 7.9 in. Average weight was 0.41 lbs. Preference harvest rate was 0.9 fish/h.

An estimated 17,963 redear were harvested which comprised 18% of the harvest by number and 23% by weight. Harvested redear averaged 7.9 in TL and 0.38 lb by

weight. Length range was 4.5 to 12.0 in. The preference harvest rate for redear was 1.31 fish/h. More redear were harvested by anglers targeting bluegill. However, their catch rate was 0.30 fish/h. Anglers were most successful in the months of May and September. In 2001, 16,237 redear were harvested with an average weight of 0.48 lbs and an average length of 8.4 in. The preference harvest rate was 0.9 fish/h.

Crappie comprised 6.6% of the fish harvested by number and 5.0% by weight. This compares to 17.9% by number and 18.3% by weight in the 2001 angler survey. Harvested crappie averaged 8.5 in TL (range 5.0 to 14.0 in) and 0.39 lbs. The preference harvest rate for crappie was 0.80 fish/h. Crappie fishing was best in the month of April.

An estimated 317 largemouth bass were harvested weighing an estimated 854.90 lbs. The average length of harvested largemouth bass was 17.6 in with an average weight of 2.7 lbs. The harvest rate for largemouth bass was 0.004 fish/h. Harvested largemouth bass ranged from 15.0 to 22.0 in TL. In 2001, an estimated 1,362 bass were harvested. Harvested bass in 2001 averaged 15.8 in TL and 1.97 lbs in weight.

Anglers at Dogwood also caught and released an estimated 50,121 largemouth bass during the survey (Table 4). Sub-legal bass accounted for 47,196 of the total with a preference catch rate of 1.4 fish/h. A total of 2,925 legal size bass were caught and released with a preference catch rate of 0.12 fish/h. Preference catch rate for sub-legal bass in 2001 was 1.8 fish/h and for legal size and greater fish the catch rate was 0.11 fish/h. Catch and release for bass was constant from April through July and picked up again in September.

An estimated 639 yellow perch with a length range of 5.5 to 11.5 in were harvested. Approximately 50% were 8 in TL and greater. Catch rates for yellow perch were best in June and September.

There were 1,193 warmouth harvested with a length range of 4.5 to 8.0 in. Fifty percent were 6 in TL and greater.

There were an estimated 1,148 channel catfish, and 44 flathead catfish harvested during the survey. Average lengths were 15.5 and 23.0 in, respectively. The creel analysis documented trot and limb line angler catch. Twenty-five percent of the channel catfish harvest in the creel survey was from trot and limb lines. Seventy-one percent of the flathead catfish harvest was from trot and limb lines.

Glendale Fish and Wildlife Area issues a maximum 15 trot line and limb line permits a week throughout the season. In 2006, 148 permits were issued, and 111 were returned. Permit holders reported harvesting 349 channel catfish and 57 flathead catfish. Other fish reported caught by permit holders included bullhead, bluegill and bass.

Angler Satisfaction

The angler survey asked fishing parties to rate their fishing trip satisfaction on a scale of 1 to 5, with 1 being excellent and 5 being poor. Forty-seven percent of the parties ranked their trip satisfaction with a “3” (Table 5). Forty-two percent ranked their trip with a “2”. Parties ranking their fishing trip as excellent accounted for 2.2% of the responses while parties ranking their fishing trip as poor accounted for 0.7%. The mean satisfaction rating was 2.6, indicating that most fishing parties trip satisfaction was “slightly above average”. This was a big shift from the 2001 creel survey when 89% rated their trip as excellent and the mean satisfaction rating was 1.2.

Origin of Anglers

Anglers fishing at Dogwood Lake came from 77 counties as well as out of state. The majority of anglers came from Daviess County (18.8%), followed by Dubois (17.0%), Lawrence (8.2%), Martin (7.4%), and Monroe counties (4.5%) (Table 6). Anglers visiting from out of state accounted for 2.7% of the total, which was 9th on the list of origin of anglers.

Economic Value of the Fishery

Anglers fishing at Dogwood Lake made an estimated 14,183 trips during the survey season. Based on data from the U.S. Department of Interior, Fish and Wildlife Service (2002), anglers in Indiana spent an average of \$36.56 for each day of fishing during 2006. Expenditures included food, lodging, transportation, equipment, licenses, and other fishing related items. Using the estimated cost of \$36.56 for each day of fishing, the estimated economic value of the Dogwood Lake fishery from April 3 to October 14, 2006 was \$520,285.36.

DISCUSSION

The number of angling trips decreased in 2006 from the 2001 creel survey. Overall, anglers harvested more fish with less effort compared to 2001. The tradeoff was a decrease in average length of bluegill and a slight decrease in average length for redear. Bass harvest decreased by number but increased by overall average length. In 2001, the total number of catch and release bass was nearly double the 2006 creel survey. The total fishing pressure for bass in 2001 was 38% higher than 2006 and as a result catch totals were higher. There were several comments from anglers that it is harder to catch legal bass than in the past. This may have been true for certain times of the fishing season but looking at the overall survey, the catch rates were similar to the 2001 creel survey for bass above and below the size limit.

Anglers rated their fishing experience as above average in 2006 compared to the 2001 creel year when 89% of the satisfaction ratings were excellent. This was most likely a reflection of the extensive experience of the angling community at Dogwood Lake. Anglers come from all over the state to fish and have been doing this for a long time. They remember the great years of fishing and as a result the expectation on any given year is based on those great years. The last creel in 2001 was one of those years. In 2005, historic bass age data was analyzed (Kittaka 2006). The year 2001 was the peak of the largemouth bass size structure. Bass growth was above average for this lake, the number of harvestable size fish was at its peak and electrofishing catch rates were near an all time high. Harvested bluegill averaged almost 8 in and 0.4 lb per fish. By 2003, the bass size structure and growth started to decline. Historically, Dogwood Lake has been an above average panfish lake. The high bass population and angler harvest has maintained this fishery. The management priority will be to maintain what naturally occurs in this system. In 1991, the bass population was managed with a protected slot-size limit. Current bass growth and fish community dynamics do not justify a return to the bass slot size limit. In 2005, largemouth bass and bluegill size structure was within the calculated index range for panfish management (Kittaka 2006). The largemouth bass population will be monitored periodically through spring electrofishing surveys.

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Table 1. Total fishing pressure, average trip length and estimated fishing trips, Dogwood Lake, 2006.

<u>Month</u>	<u>Total fishing pressure</u>	<u>Average trip (hours)</u>	<u>Total fishing pressure by acre</u>	<u>Estimated fishing trips</u>
April	9,805	5.03	6.93	1,949
May	18,341	5.57	12.97	3,291
June	11,731	5.31	8.30	2,211
July	9,342	5.20	6.61	1,795
August	5,529	5.43	3.91	1,019
September	15,629	5.99	11.05	2,608
October	7,613	5.81	5.38	1,309
Total	77,991	5.48	55.16	14,183

Table 2. Number and percent of species sought by anglers at Dogwood Lake, 2006.

<u>Species Sought</u>	<u>Number</u>	<u>Percent</u>
Bluegill	874	56.2
Largemouth bass	464	29.9
Crappie	96	6.2
Channel catfish	51	3.3
Redear	50	3.2
Anything	18	1.2
All Catfish	1	0.1
Total	1554	100.0

Table 3. Estimated fish species harvested by number, weight and length range (in) at Dogwood Lake, 2006.

<u>Species</u>	<u>Harvest</u>	<u>Percent harvest</u>	<u>Weight</u>	<u>Percent weight</u>	<u>Length Range (in)</u>
Bluegill	72,539	72.2	17,804.3	58.9	4.0-11.5
Redear	17,963	17.9	6,833.2	22.6	4.5-12.0
Crappie	6,654	6.6	2,631.6	8.7	5.0-14.0
Warmouth	1,193	1.2	181.0	0.6	4.5-8.0
Channel catfish	1,148	1.1	1,499.2	5.0	10.5-23.5
Yellow perch	639	0.6	166.3	0.6	5.5-11.5
Largemouth bass	317	0.3	854.9	2.8	15.0-22.0
Flathead catfish	44	0.0	239.6	0.8	21.0-25.0
Bullhead catfish	11	0.0	n/a	n/a	8.0-9.0
Total	100,507		30,210.0		

Table 4. Estimated catch and release totals for largemouth bass above and below the 15 in TL size limit, Dogwood Lake 2006.

<u>2006</u>	<u>LMB<15</u>	<u>LMB>15</u>	<u>Total</u>
April	11,003	454	11,457
May	9,771	682	10,453
June	8,531	539	9,070
July	7,667	400	8,067
August	3,590	322	3,912
September	5,079	387	5,466
October	1,555	141	1,696
Total	47,196	2,925	50,121

Table 5. Number and percent of anglers for each satisfaction rating, Dogwood Lake, 2006.

<u>Satisfaction Rating</u>		<u>No.</u>	<u>Percent</u>
Excellent	1	33	2.1
	2	645	41.8
	3	729	47.2
	4	125	8.1
Poor	5	11	0.7
Total		1,543	

Table 6. County of origin of anglers and their number of trips to Dogwood Lake, 2006.

<u>County</u>	<u>Trips</u>	<u>Percent</u>	<u>County</u>	<u>Trips</u>	<u>Percent</u>
Daviess	291	18.8	Tipton	6	0.4
Dubois	264	17.0	Harrison	5	0.3
Lawrence	127	8.2	Vermillion	5	0.3
Martin	115	7.4	Clinton	5	0.3
Monroe	69	4.5	Hancock	5	0.3
Knox	52	3.4	Grant	5	0.3
Marion	51	3.3	Fulton	5	0.3
Gibson	44	2.8	Clark	5	0.3
Out of state	41	2.6	Porter	5	0.3
Whitley	35	2.3	Dekalb	5	0.3
Allen	32	2.1	Warren	4	0.3
Pike	30	1.9	Carroll	4	0.3
Madison	22	1.4	Posey	4	0.3
Huntington	21	1.4	Switzerland	4	0.3
Howard	19	1.2	Pulaski	4	0.3
Vanderburgh	19	1.2	Bartholomew	4	0.3
Orange	15	1.0	Newton	3	0.2
Greene	15	1.0	Sullivan	3	0.2
Marshall	14	0.9	Decatur	3	0.2
Miami	12	0.8	Clay	2	0.1
Hendricks	12	0.8	Washington	2	0.1
Cass	11	0.7	Parke	2	0.1
Kosciusko	10	0.6	Spencer	2	0.1
Owen	9	0.6	LaPorte	2	0.1
Jennings	9	0.6	Union	2	0.1
Jackson	9	0.6	Rush	2	0.1
White	8	0.5	Perry	2	0.1
Floyd	8	0.5	Starke	2	0.1
Delaware	8	0.5	Steuben	2	0.1
Johnson	8	0.5	Boone	1	0.1
Hamilton	7	0.5	Crawford	1	0.1
Henry	7	0.5	Randolph	1	0.1
Scott	6	0.4	Lake	1	0.1
Shelby	6	0.4	Fayette	1	0.1
Tippecanoe	6	0.4	Lagrange	1	0.1
Noble	6	0.4	Brown	1	0.1
Wabash	6	0.4	Benton	1	0.1
Montgomery	6	0.4	Wayne	1	0.1
Morgan	6	0.4	Total	1,549	

APPENDIX

Length frequency of harvested fish that were measured during interviews,
Dogwood Lake, 2006

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Redear Sunfish

Average Weight 0.380405

Average Length 7.892902

Estimated harvest 17963

Estimated weight 6833.209

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
4.5		1											
5.0	2	10	21	11		23	4	71	355	0.02	404.11	0.08	33.39
5.5	9	20	28	19	4	20	3	103	566.5	0.03	586.24	0.11	65.20
6.0	20	39	46	64	42	93	26	330	1980	0.10	1878.26	0.15	274.04
6.5	14	39	42	41	31	53	8	228	1482	0.07	1297.71	0.19	243.03
7.0	19	56	41	62	60	116	26	380	2660	0.12	2162.85	0.24	510.37
7.5	10	57	44	61	50	84	11	317	2377.5	0.10	1804.27	0.29	527.98
8.0	25	69	58	83	83	115	31	464	3712	0.15	2640.95	0.36	945.14
8.5	14	50	49	55	45	78	13	304	2584	0.10	1730.28	0.43	748.12
9.0	44	58	51	61	56	110	26	406	3654	0.13	2310.83	0.52	1194.13
9.5	10	39	27	34	21	50	16	197	1871.5	0.06	1121.26	0.61	685.85
10.0	15	49	23	29	28	54	19	217	2170	0.07	1235.10	0.72	886.55
10.5	7	23	9	11	5	17	10	82	861	0.03	466.72	0.84	390.07
11.0	2	19	1	1	6	6	7	42	462	0.01	239.05	0.97	230.99
11.5	2	8			1			11	126.5	0.00	62.61	1.11	69.49
12.0	3	1						4	48	0.00	22.77	1.27	28.86
TOTALS	196	537	440	532	432	819	200	3156	24910	1	17963		6833.21

Length Frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Bluegill

Average Weight 0.245722

Average Length 6.671984

Estimated harvest 72539

Estimated weight 17804.28

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
3.0								0	0	0.00	0.00		0.00
3.5								0	0	0.00	0.00		0.00
4.0	6		2					8	32	0.00	53.36	0.04	2.25
4.5	11	16	3			13		43	193.5	0.00	286.79	0.06	17.89
5.0	33	148	112	98	29	162	17	599	2995	0.06	3995.11	0.09	353.44
5.5	88	175	173	163	66	321	40	1026	5643	0.09	6843.05	0.12	830.41
6.0	84	261	246	418	221	594	128	1952	11712	0.18	13019.14	0.16	2108.30
6.5	60	286	275	429	204	604	102	1960	12740	0.18	13072.49	0.21	2760.45
7.0	96	287	357	478	278	675	192	2363	16541	0.22	15760.36	0.27	4255.11
7.5	48	281	328	347	142	483	107	1736	13020	0.16	11578.49	0.34	3929.66
8.0	57	205	199	128	53	225	64	931	7448	0.09	6209.43	0.42	2610.35
8.5	24	94	38	5	1	24	6	192	1632	0.02	1280.57	0.51	658.20
9.0	20	22	1		1	2	2	48	432	0.00	320.14	0.62	198.89
9.5	8	5						13	123.5	0.00	86.71	0.74	64.44
10.0		3						3	30	0.00	20.01	0.88	17.63
11.0	1							1	11	0.00	6.67	1.21	8.06
11.5	1							1	11.5	0.00	6.67	1.40	9.34
TOTALS	537	1783	1734	2066	995	3103	658	10876	72564.5	1	72539		17824.42

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Crappie

Average Weight 0.395484

Average Length 8.521371

Estimated harvest 6654

Estimated weight 2631.551

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
5.0	7							7	35	0.01	41.48	0.06	2.40
5.5	27	1				1		29	159.5	0.03	171.83	0.08	13.67
6.0	53	2		2	3	19	6	85	510	0.08	503.64	0.11	53.58
6.5	23	5	2	1		7	2	40	260	0.04	237.01	0.14	32.96
7.0	53	12	9	7	4	41	12	138	966	0.12	817.68	0.18	145.69
7.5	26	7	9	4	7	7	4	64	480	0.06	379.21	0.22	85.11
8.0	60	14	19	11	6	48	11	169	1352	0.15	1001.36	0.28	278.89
8.5	37	5	11	1		15	0	69	586.5	0.06	408.84	0.34	139.46
9.0	55	17	18	10	4	41	7	152	1368	0.14	900.63	0.41	371.95
9.5	24	14	8	1	1	11	2	61	579.5	0.05	361.44	0.49	178.86
10.0	53	25	23	13	8	27	8	157	1570	0.14	930.26	0.59	546.52
10.5	10	7	5	2		2	4	30	315	0.03	177.76	0.69	122.94
11.0	27	17	8	3	1	7	5	68	748	0.06	402.91	0.81	325.59
11.5	19	5		1		1	0	26	299	0.02	154.06	0.94	144.45
12.0	20			1			2	23	276	0.02	136.28	1.08	147.33
12.5	1		1					2	25	0.00	11.85	1.24	14.69
13.0	1		1					2	26	0.00	11.85	1.41	16.74
14.0			1					1	14	0.00	5.93	1.81	10.73
TOTALS	496	131	115	57	34	227	63	1123	9569.5	1	6654		2631.55

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Yellow perch

Average Weight 0.260315

Average Length 7.8125

Estimated harvest 639

Estimated weight 166.3415

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
5.0								0	0	0	0		0
5.5		1					1	2	11	0.02	13.31	0.08	1.02
6.0	1			2	1	3		7	42	0.07	46.59	0.10	4.74
6.5			1	1	1	1	1	5	32.5	0.05	33.28	0.13	4.38
7.0		2	2	8		5	5	22	154	0.23	146.44	0.17	24.51
7.5	1		4	1	5	1		12	90	0.13	79.88	0.21	16.71
8.0	1	2	4	9	2	3	2	23	184	0.24	153.09	0.26	39.44
8.5						6		6	51	0.06	39.94	0.31	12.51
9.0			4			1		5	45	0.05	33.28	0.38	12.54
9.5			2			2	1	5	47.5	0.05	33.28	0.45	14.94
10.0		3	1			1		5	50	0.05	33.28	0.53	17.63
10.5	1	1	1					3	31.5	0.03	19.97	0.62	12.38
11.5		1						1	11.5	0.01	6.66	0.83	5.54
TOTALS	4	10	19	21	9	23	10	96	750	1	639		166.34

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Channel catfish

Average Weight 1.305891

Average Length 15.45561

Estimated harvest 1148

Estimated weight 1499.163

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
10.5		1						1	10.5	0.00	5.36	0.34	1.84
11.0								0	0	0.00	0.00	0.40	0.00
11.5		1						1	11.5	0.00	5.36	0.46	2.48
12.0		1				3		4	48	0.02	21.46	0.53	11.41
12.5		1		1				2	25	0.01	10.73	0.61	6.53
13.0		2	4	5	1	5		17	221	0.08	91.20	0.69	63.14
13.5		3	3		1	5		12	162	0.06	64.37	0.78	50.47
14.0	1	4	4	11	1	13	1	35	490	0.16	187.76	0.88	165.94
14.5		2	2	1	3	4	1	13	188.5	0.06	69.74	0.99	69.19
15.0		2	2	4	6	13		27	405	0.13	144.84	1.11	160.67
15.5				2	1	6	1	10	155	0.05	53.64	1.24	66.29
16.0		8	3	2	5	10	3	31	496	0.14	166.30	1.37	228.17
16.5			1		3	2	1	7	115.5	0.03	37.55	1.52	57.02
17.0		7		2	2	8	2	21	357	0.10	112.65	1.68	188.73
17.5		1			2	2		5	87.5	0.02	26.82	1.84	49.44
18.0		4		1	4	1		10	180	0.05	53.64	2.02	108.49
18.5		2				1		3	55.5	0.01	16.09	2.21	35.62
19.0		3		1		2	1	7	133	0.03	37.55	2.42	90.75
19.5		3						3	58.5	0.01	16.09	2.63	42.37
20.0		2						2	40	0.01	10.73	2.86	30.70
21.5		1						1	21.5	0.00	5.36	3.63	19.48
23.0		1						1	23	0.00	5.36	4.53	24.33
23.5		1						1	23.5	0.00	5.36	4.87	26.11
TOTALS	1	50	19	30	29	75	10	214	3307.5	1	1148		1499.16

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Largemouth bass

Average Weight 2.70

Average Length 16.73

Estimated harvest 317.00

Estimated weight 854.90

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
15.0	4			1				5	75	0.18	56.61	1.83	103.70
15.5	1	1	1	3	1			7	108.5	0.25	79.25	2.03	161.19
16.0	3							3	48	0.11	33.96	2.25	76.45
16.5			1					1	16.5	0.04	11.32	2.48	28.11
17.0	1				1			2	34	0.07	22.64	2.73	61.84
17.5		1		2		1		4	70	0.14	45.29	3.00	135.67
18.0								0	0	0.00	0.00	3.28	0.00
18.5			1	1	1			3	55.5	0.11	33.96	3.58	121.50
19.0		1						1	19	0.04	11.32	3.89	44.10
20.0	1							1	20	0.04	11.32	4.59	51.94
22.0				1				1	22	0.04	11.32	6.22	70.40
TOTALS	10	3	3	8	3	1	0	28	468.5	1	317		854.90

Length frequency of harvested fish measured during interviews.

Lake: Dogwood Lake Date: 2006

Species: Warmouth

Average Weight 0.154946

Average Length 5.657895

Estimated harvest 1193

Estimated weight 180.9593

Length	April	May	June	July	Aug.	Sept.	Oct.	TOTALS	A*I	%	Exp #	Ave. wgt	T wgt.
4.5	1	3						4	18	0.02	25	0.0681	1.71
5.0	10	27	8	4	1			50	250	0.26	314	0.09	28.26
5.5	14	19	4			1		44	242	0.23	276	0.13	35.92
6.0	11	25	8	7	1	1		53	318	0.28	333	0.17	56.57
6.5	6	13		1	1			21	136.5	0.11	132	0.21	27.69
7.0		10	4					14	98	0.07	88	0.27	23.73
7.5		3						3	22.5	0.02	19	0.33	6.22
8.0		1						1	8	0.01	6	0.41	2.57
TOTALS	42	101	24	18	3	2	0	190	1075	1	1168		180.96